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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,458	08/29/2003	Nikolai V. Vyssotski	16356.810 (DC-05082)	2446

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EXAMINER	
DOGAN, ERIN L	

ART UNIT	PAPER NUMBER
2115	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/652,458	VYSSOTSKI ET AL.	
	Examiner	Art Unit	
	Erin L. Dogan	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/29/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 6,516,418 B1) in view of Su et al (US 5,327,016).

3. For Claim 1, Lee teaches a method of operating an information handling system (HIS) comprising:

sensing whether the IHS is drawing power from a DC power source or an AC power source (Column 3, lines 61-63);

interrupting current to an external module of the IHS if, when the IHS is drawing power from a DC power source, the current to the external module exceeds a first current limit (Column 3, lines 63-66, Column 4, lines 3-5) , and

interrupting current to the external module if, when the IHS is drawing power from an AC power source, the current to the external module

exceeds a second current limit (Column 3, lines 63-66, Column 4, lines 3-5).

Lee does not explicitly teach of having different current limit for the AC power and DC power.

Su et al teaches of having different current limit for the AC power and DC power (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

4. For Claim 2, Lee teaches a method wherein the DC power source is a battery (Figure 4 [104]).

5. For Claim 3, Lee teaches a method wherein the AC power source is an AC adaptor (Figure 4 [102]).

6. For Claim 4, Lee teaches a method wherein the external module is a media drive (Column 1, lines 37-43).

Lee does not explicitly teach that the external module is a media drive.

Examiner gives official notice that the external module to a computer being a media drive is well known in the art.

It would have been obvious to one of ordinary skill in the art to have the external module to a computer be a media drive because it adds functionality to the computer.

7. For Claim 5, Lee discloses a method including initializing the IHS prior to sensing whether the IHS is drawing power from a DC power source or an AC power source (Column 3, lines 55-61).

8. For Claim 6, Lee discloses a method including supplying current to a cut-off switch, which is connected to the external module (Figure 8 [308][310]).

9. For Claim 7, Lee discloses a method including closing the cut-off switch upon initializing the IHS to supply current to the external module (Figure 8 [308][312]).

10. For Claim 8, Su et al discloses a method of claim 6 wherein the cut-off switch is a power FET (Column 2, lines 57-58).

11. For Claim 9, Lee discloses a method including opening the cut-off switch when the current to the external module is provided by a DC battery source and the current to the external module exceeds the first current limit (Column 9, lines 30-32, lines 42-45).

Lee does not explicitly teach of having different current limit for the AC power and DC power.

Su et al teaches of having different current limit for the AC power and DC power (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

12. For Claim 10, Lee discloses a method of including opening the cut-off switch when the current to the external module is provided by an AC power source and the current to the external module exceeds the second current limit (Column 9, lines 30-32, lines 42-45).

Lee does not explicitly teach of having different current limit for the AC power and DC power.

Su et al teaches of having different current limit for the AC power and DC power (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

13. For Claim 11, Lee discloses an information handling system (IHS) comprising:

> a main subsystem including a processor and a memory coupled to the processor (Figure 8 [322]320][318][314]);
> an external module (Figure 1 [20][30][12][14]); and
> a power subsystem, coupled to the main subsystem and the external module (Figure 8 [312][310][308]),
> for supplying DC current to the main subsystem and the external module, the power subsystem interrupting DC current to the external module if, when the IHS is drawing power from a DC power source, the current to the external module exceeds a first current limit, and also interrupting DC current to the external module if, when the IHS is drawing power from an AC power

source, the current to the external module exceeds a second current limit (Column 9, lines 30-32, lines 42-45).

Lee does not explicitly teach of having different current limit for the AC power and DC power.

Su et al teaches of having different current limit for the AC power and DC power (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

14. For Claim 12, Lee discloses a IHS wherein the power subsystem includes a cut-off switch which is coupled to the external module to supply current to the external module and to interrupt current to the external module (Figure 8 [308][310]).

15. For Claim 13, Su et al discloses a IHS wherein the cut-off switch is a power FET (Column 2, lines 57-58).

16. For Claim 14, Lee disclose a IHS wherein the power subsystem includes a power management controller which determines if the IHS is being powered by a DC power source or an AC power source (Column 3, lines 61-63).

17. For Claim 15, Lee discloses a IHS wherein the DC current is unregulated (Column 5, lines 38-45).

18. For Claim 16, discloses a IHS wherein the power subsystem includes a multiple threshold current protection circuit, coupled to the cut-off switch, for interrupting DC current to the external module if, when the IHS is drawing power from a DC power source, the current to the external module exceeds a first current limit, and also interrupting DC current to the external module if, when the IHS is drawing power from an AC power source, the current to the external module exceeds a second current limit (Column 9, lines 30-32, lines 42-45).

Lee does not explicitly teach of having different current limit for the AC power and DC power and therefore needing a multiple threshold over-current circuit.

Su et al teaches of having different current limit for the AC power and DC power and therefore needing a multiple threshold over-current circuit (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

19. For Claim 17, Lee discloses a IHS of claim 16 wherein the power subsystem includes a power management controller which determines if the IHS is being powered by a DC power source or an AC power source (Column 3, lines 61-63).

20. For Claim 18, Lee discloses a IHS of claim 17 wherein the power subsystem generates a fault flag if when the IHS is drawing power from a DC power source, the current to the external module exceeds a first current limit and if when the HIS is drawing power from an AC power source, the current to the external module exceeds a second current limit (Column 9, lines 30-35).

Lee does not explicitly teach of having different current limit for the AC power and DC power.

Su et al teaches of having different current limit for the AC power and DC power (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

21. For Claim 19, Lee discloses a IHS wherein the fault flag is provided to the power management controller (Column 9, lines 32-35).

22. For Claim 20, Lee discloses a IHS wherein the multiple threshold protection circuit includes a sensor in series with the cut-off switch and the external module to sense the current supplied to the external module by the power subsystem (Column 3, lines 63-66).

Lee does not explicitly teach of having different current limit for the AC power and DC power and therefore needing a multiple threshold over-current circuit.

Su et al teaches of having different current limit for the AC power and DC power and therefore needing a multiple threshold over-current circuit (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different

current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

23. For Claim 21, Lee discloses a information handling system (IHS) comprising:

a chassis (Figure 1 [10]),

a main subsystem including a processor mounted in the chassis (Figure 1 [10], Figure 8 [150]),

a storage coupled to the processor (Figure 8 [322][320]),

an external module (Figure 1 [20][30][12][14]), and

a power subsystem, coupled to the main subsystem and the external module (Figure 8 [312][310][308]), for supplying DC current to the main subsystem and the external module, the power subsystem interrupting DC current to the external module if, when the IHS is drawing power from a DC power source, the current to the external module exceeds a first current limit, and also interrupting DC current to the external module if, when the IHS is drawing power from an AC power source, the current to the external module exceeds a second current limit (Column 9, lines 30-32, lines 42-45).

Lee does not explicitly teach of having different current limit for the AC power and DC power.

Su et al teaches of having different current limit for the AC power and DC power (Column 1, lines 11-21).

It would have been obvious to one of ordinary skill in the art to combine the teachings of Lee and Su et al to incorporate the capability of having different current limits for AC power and DC power so as to enhance status reporting and self-protection capabilities.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin L. Dogan whose telephone number is 571-272-1412. The examiner can normally be reached on Mon-Fri 8:00-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571)272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin Dogan
Patent Examiner
Art Unit 2115